

Introduction

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The second installment of *Advances in the Systematics of Platygastroidea* presents nine articles on an array of subjects that include paleontology, molecular phylogenetics and diagnostics, mating compatibility, field surveys, and a variety of taxonomic treatments. Designation of a new family name, Proterosceliopsidae, portends further changes to family-level classification in Platygastroidea and characterizes an extinct lineage. Two generic revisions bring much needed attention to Sceliotrachelinae, a group that has received relatively little attention. Importantly, the concepts of these genera are updated and synthesized through analysis of their constituent species and examination of related taxa.

From the remaining articles emerges the primary theme of this special issue: the systematics of scelionids that attack the eggs of invasive pests. During the past two decades, three pentatomoid pests of agricultural significance have invaded new continents, *Halyomorpha halys*, *Bagrada hilaris*, and *Megacopta cribraria*, generating impetus and funding for research on their parasitoids, particularly those in the scelionid genus *Trissolcus*. This issue contains treatments of scelionids that attack the eggs of each of these stink bugs, as well as a parasitoid of the widespread lepidopteran pest, *Spodoptera frugiperda*, highlighting the importance of these wasps in agricultural ecosystems. The molecular phylogeny of *Trissolcus* analyzes relationships between species found in the native and invaded ranges of *H. halys* and provides a context for delimiting species groups. This phylogeny independently confirms the results of a reanalysis of *Trissolcus*

species that were considered junior synonyms of *Trissolcus semistriatus* in the first issue of *Advances in the Systematics of Platygastroidea*. This complex contains some of the most common and widespread species in the genus, some of which have defied accurate diagnosis since their original description. Coupled with characterization of primary types described by Francis Walker in the 19th century, this marks a significant step in stabilizing the species-level taxonomy of *Trissolcus*.

This special issue is made possible by the work of contributors representing 24 institutions spread throughout ten countries and four continents. By presenting these publications as part of a cohesive unit, it is hoped that they will promote further collaboration and interest in the beneficial and beautiful taxon that is Platygastroidea.